A method and system are provided for analyzation of those defects with possibility to become electrical failures with higher priority during inspection processes of particles and/or pattern defects of a wafer for formation of electronic devices such as semiconductor integrated circuits.

Defect map data is read by defect map data readout processing 11 while reading failure probability data by failure possibility data read processing. Next, defect-dependent failure probability calculation processing is done to calculate the failure probability of each defect in the defect map data to thereby prepare failure probability-added defect map data. Further, to-be-reviewed defect selection processing is employed to perform reordering and filtering of defects from the failure probability-added defect map data, thus selecting one or more defects to be reviewed.